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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,478	08/26/2003	Michael Stilgenbauer	DKT02096	5378

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EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,478

Applicant(s)

STILGENBAUER, MICHAEL

Examiner

Thai-Ba Trieu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 8, and 9 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5-7, 10 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

The Preliminary Amendment filed on August 26, 2003 is acknowledged, including "Cross Reference to Related Application", amended claims 1-10, and a newly added claim 11.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A (1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "24a" (See Figure 1) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are

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required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "11" has been used to designate both "**actuation device**" (See Figure 1) and "**an un-disclosed element**" (See Figure 1a). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "**6**" and "**38**" (See Pages 10-11, Paragraph [0028], line 11); "**ring 2c**" (See Page 10, Paragraph [0026], line 4); "**shoulder 2c**" (See Page 10, Paragraph [0026], line 11); and "**sealing ring 26**" (See Page 11, Paragraph [0031], line 7). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "**3**" and "**5**" have both been used to designate the same element (See Figure 2). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "***releasable ring having a small diameter than the roller contact surface of the control ring***" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

1. IN THE ABSTRACT:

Since the abstract is too long and contains **285 words**, Applicant is required to submit a substitute abstract in order to meet the requirement set forth below:

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet **within the range of 50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. IN THE SPECIFICATION:

The disclosure is objected to because of the following informalities:

a. In order to keep the specification and claims to be consistent, applicant should elect only one of the terms to disclose the following elements:

1. For the element "2c", applicant uses "**ring 2c**" (See Page 10, Paragraph [0026], line 4); or "**shoulder 2c**" (See Page 10, Paragraph [0026], line 11).

2. For the element "3", applicant uses "**roller bearing**" (See Pages 7-8, Paragraph [0021], line 14); or "**rollers**" (See Page 8, Paragraph [0022], line 5, and Paragraph [0023], lines 3 and 5); or "**balls**" (See Page 9, Paragraph [0023], line 13; or "**roller bodies**" (See Pages 7-8, Paragraph [0021], line 14); or "roller bearing" (See Claims 1-3, 5-7, 9-11).

3. For the element "6", applicant uses "**inner flange**" (See Page 9, Paragraph [0025], line 2); or "**radial flange**" (See Page 11, Paragraph [0030], lines 3 and 11); or "**axially open free space**" (See Page 11, Paragraph [0030], lines 12-13).

4. For the element "p", applicant uses "**certain play p**" (See Page 8, Paragraph [0022], lines 5-6); or "**certain radial play**" (See Claim 5, line 6).

5. For the element **"8"**, applicant uses **"shafts"** (See Page 7, Paragraph [0020], line 2); or **"vane shafts"** (See Claim 1, line 6); or **"control shafts"** (See Claim 9, lines 5 and 8); .

6. For the element **"9"**, applicant uses **"admission channel"** (See Page 6, Paragraph [0018], line 3); or **"fluid leading space"** (See Claim 7, lines 6-7).

7. For the element **"19"**, applicant uses **"control lever"** (See Page 12, Paragraph [00354], line 2); or **"control element"** (See Claim 1, lines 19-20, Claim 4, line 3, and Claim 9, line 12).

8. For the element **" 20' and 21' "**, applicant uses **"roller bearing"** (See Page 13, Paragraph [0036], lines 4-5); or **"rolling contact surfaces"** (See Page 13, Paragraph [0036], lines 9-10); or **"depressed surfaces"** (See Page 13, Paragraph [0036], line 13).

9. For the element **" 22' "**, applicant uses **"depressed surfaces"** (See Page 13, Paragraph [0036], line 13); or **"slot"** (See Page 13, Paragraph [0036], line 16).

10. For the element **" 22 "**, applicant uses **"rolling ring "** (See Pages 8-9, Paragraph [0023], line 7); or **"holding ring"** (See Claim 3, lines 5-7 and 9; Claim 10, line 9, and Pages 8-9, Paragraph [0023], lines 3 and 5).

11. For the element **" 23 "**, applicant uses **"rotor space "** (See Page 6, Paragraph [0017], line 8; and Paragraph [0018], line 3); or

"turbine space" (See Claim 1, line 5); or **"fluid leading space"** (See Claim 7, lines 6-7).

12. For the element **" 28 "**, applicant uses **"seal groove "** (See Page 11, Paragraph [0031], lines 3-4); or **"ring shaped sealing"** (See Claim 7, line 5).

13. For the element **" 37 "**, applicant uses **"long hole "** (See Pages 12-13, Paragraph [0035], line 6); or **"separate ring"** (See Pages 12-13, Paragraph [0035], lines 9-10; and Page 13, Paragraph [0036], line 8).

b. On Page 6, Paragraph [0017], line 4, **" shaft 45' "** after **"carries"** should be replaced by -- **shaft 35 --**.

c. On Page 7, Paragraph [0019], line 9, **" axis ® "** after **"ring 5 around"** should be replaced by -- **axis (R) --**.

d. On Page 12, Paragraph [0032], line 4, **" roll 2' "** after **"fastened to"** should be replaced by -- **wall 2 --**.

e. On Page 13, Paragraph [0036], line 17, **" sealing groove 26 "** should be replaced by -- **sealing groove 28 --**.

f. On Page 14, Paragraph [0037], line 14, **"several VTG mechanism 26, 26' "** should be replaced by -- **several VTG mechanism 26, 26a --**.

Appropriate correction is required.

Claim Objections

Claims 4 and 9 are objected to because of the following informalities:

- In claim 4, lines 6-7, "***control element***" after "***each plurality of***" should be replaced by -- ***control elements*** -- (for correcting typo error).
- In claim 9, lines 4-5, "***a nozzle ring (6),***" before "***wherein said nozzle ring (6)***" should be deleted; and line 6, "***each nozzle ring***" after "***wherein***" should be replaced by -- ***each of said control shafts*** --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, applicant claims "***the roller contact surface (21) of the releasable connectable ring (6, 38) having a smaller diameter than the roller contact surface (20) of the control ring (5)***", which renders the claim indefinite. It is not clear to the examiner, since the claimed limitations are contradicted to the drawings.

In Figures 1 and 4, it seems that "***the roller contact surface (21) of the releasable connectable ring (6) having a bigger diameter than the roller contact surface (20) of the control ring (5)***".

In Figure 1a, there is no ***roller contact surface (21) of the releasable connectable ring (6)***.

In Figures 2-3 and 5-6, it seems that ***"the roller contact surface (21) of the releasable connectable ring (6) having the same diameter as the roller contact surface (20) of the control ring (5)"***.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Fleury (Patent Number 4,804,316).

Regarding claim 1 and 4, Fleury discloses a turbine unit, especially for a turbocharger comprising:

a rotor housing (18) with at least one admission channel (28) for a fluid;

a turbine rotor (12) which is supported in a turbine space (21) of the rotor housing (18);

a nozzle ring (38) with a plurality of vane shafts (36) which are located on said nozzle ring (38) in form of a crown, and which comprises on one side vanes (34), which are susceptible to being turned from a substantially tangential

position into a substantially radial position (with respect to said crown), and at least one control element (46) in order to change the position of the vanes (34);

an actuation device (60, 56, 54) in order to create control movements, which are transmitted to a VTG mechanism with variable geometry;

whereby the transmission of a control movement is effectuated by means of a control ring (48) which is positioned coaxially with said nozzle ring (38) and adjacent thereto, and which is movably connected with said at least one control element (46), as well as a guiding and centering device for control ring (48), which comprises at least one roller bearing (49) having roller bodies which substantially roll on a roller contact surface (Not Numbered) of the control ring (48);

wherein said roller bearing (49) is arranged between control ring (48) and a ring (38); wherein releasably connected with the rotor housing (18), so that control ring (48), roller bearing (49) and the possibly releasably connectable ring (38) are installed in the rotor housing (18) as a modular unit (See Figure 4, Column 1, lines 65-67, Column 3, lines 53-67, and Column 4, lines 1-7);

wherein a plurality of control elements (46) are fastened on vane shafts (36) on the side of the nozzle ring (38) which is opposite to the vanes (34), and extend approximately radially (See Figure 3); and

wherein each plurality of control elements (46) has a free end (See Figure 3).

Regarding claim 9, Fleury further discloses said nozzle ring (38) comprising control shafts (36),

wherein each of said control shafts (36, 136) has a vane (34, 134) of variable orientation on one end (See Figures 6 and 10),

wherein said control shafts (36) have on their other ends control elements (46) capable to produce a modification of the orientation of the vanes (34), said control ring (48) capable of controlling the control elements (46) and a guiding and centering arrangement for the control ring (48) which comprises at least one roller bearing (49) including roller bodies which roll on a roller contact surface (Not Numbered) of control ring (48); wherein said roller bearing (49) is arranged between said control ring (48) and a ring (38) which is releasably connectable within the housing (18), so that the control ring (48), the roller bearing (49) and the releasably connectable ring (38) form one modular unit (See Figure 4, Column 1, lines 65-67, Column 3, lines 53-67, and Column 4, lines 1-7).

Allowable Subject Matter

Claims **2-3, 5-7, and 10-11** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Knauer et al. (Pub. Number US 2003/0170117 A1) disclose a turbocharger for a vehicle with improved suspension actuating mechanism for variable nozzles.
- Schmidt et al. (US Patent Number 6,546,728 B2) disclose an exhaust gas turbocharger for an internal combustion engine and a method of operating an exhaust gas turbocharger.
- Gonthier et al. (US Patent Number 4,773,821) disclose a control mechanism for variably settable vanes of a flow straightener in a turbine plant.
- Swihart et al. (US Patent Number 4,679,984) disclose an actuation system for variable nozzle turbine.
- Sishtla et al. (US Patent Number 6,015,259) disclose a support mechanism of an inner ring for variable pipe diffuser.
- Burdette et al. (US Patent Number 4,654,941) disclose a method of assembling a variable nozzle turbocharger.
- Burdette et al. (US Patent Number 4,643,640) discloses a gas seal vanes of a variable nozzle turbine.
- Meier et al. (US Patent Number 5,964,574) disclose an exhaust gas turbine of a turbocharger.
- Svihla et al. (US Patent Number 6,287,091 B1) disclose a turbocharger with nozzle ring coupling.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB
March 11, 2004



Thai-Ba Trieu
Patent Examiner
Art Unit 3748